

## Claims

- 5 1. Method for monitoring a technical installation (24), especially for carrying out diagnosis, comprising the following steps:
- deriving at least one temperature pattern (7) related to  
10 a current operating situation of the technical installation (24) from at least one of a number of temperature values and temperature information related to the technical installation,
  - comparing at least one derived temperature pattern (7)  
15 to at least one of a known failure temperature pattern and a stored failure temperature pattern and a process disturbance temperature pattern related to a specific operating situation of the technical installation (24), and
  - classifying the current operating situation as at least  
20 one of a normal and stationary and transient and tolerable and abnormal and dangerous operating situation of the technical installation (24) based upon said comparison.
- 25 2. Method according to claim 1, comprising  
storing said classification of said current operating situation and its related temperature pattern (7) in a memory, preferably a database (8), for a future comparison  
30 with a future temperature pattern occurring during a future operation of the technical installation (24).
3. Method according to claim 1 or 2, comprising  
35 acquiring at least one of said temperature values and temperature information by means of an infrared camera (4).

4. Apparatus (1) for carrying out diagnosis of a technical installation (24),  
comprising
- at least one data acquisition module (5) adapted to acquire at least one of a number of temperature values and temperature information related to the technical installation (24),
  - an analysis module (6) adapted to derive at least one temperature pattern (7) related to a current operating situation of the technical installation (24) from at least one of said temperature values and temperature information, comparing said temperature pattern (7) to at least one of a known failure temperature pattern and stored failure temperature pattern (7) and process disturbance temperature pattern (7) related to a specific operating situation of the technical installation (24) and to classify (9) the current operating situation as at least one of a normal and stationary and transient and tolerable and abnormal and dangerous operating situation of the technical installation (24).
5. Apparatus (1) according to claim 4,  
further comprising a memory, preferably a database (8), adapted to store said classification (9) of said current operating situation and its related temperature pattern (7) for a future comparison with a future temperature pattern (7) occurring during a future operation of the technical installation (24).
6. Apparatus (1) according to claim 4 or 5,  
further comprising an infrared camera (4) included by said data acquisition module (5).